



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,123	06/15/2001	David P. Huang	1880	8640

35157 7590 07/19/2004

NATIONAL STARCH AND CHEMICAL COMPANY  
P.O. BOX 6500  
BRIDGEWATER, NJ 08807-3300

EXAMINER
----------

TRAN LIEN, THUY

ART UNIT	PAPER NUMBER
----------	--------------

1761

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/882,123

Applicant(s)

HUANG ET AL.

Examiner

Lien T Tran

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

Claims 2-12,17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Cremer ( 4109024).

Cremer discloses a process of making a dough with a binder comprising an a cold-water dispersible starch. Dehydrated potatoes and binder are combined with water to produce a dough. The dough is formed into pieces and fried. The binder gives a better handling properties to the potato pieces; they have greater mechanical strength and can be handled with less breakage between the formation of the piece and frying. The cold-water dispersible starch is made from starch of ordinary amylose content by drying an aqueous slurry or paste on steam-heated rolls or in a spray-dryer. One of the starch that can be used in potato starch that is dried on a drum dryer. (see column 2 lines 35-42, col. 4 lines 25-50 and example 1).

The properties disclosed in 2-4, 8-9, 11-12 ,17-18 and 20 are inherent in the Cremer product because the product is a dough which contains an amylose containing starch and the starch is obtained from potato. With respect to the steps of claim 11, Cremer discloses forming a slurry or paste on steam-heated rolls ; this cooks and dries the starch. The starch can also be prepared on a drum dryer which cooks and dries the starch slurry. The amylose-containing starch is incorporated into the dough. The pieces prepared from the dough are fried which meet the limitation of claim 7. The dough as set forth in example 1 does not contain any fat; thus, it is a low fat dough which meets the limitation of claim 21.

Claims 8-10, 17-19 rejected under 35 U.S.C. 102(b) as being anticipated by Mitchell et al.

Art Unit: 1761

Mitchell et al disclose a modified starch. The starch is prepared from ungelatinized starch such as potato starch, tapioca starch etc.. The starch is prepared by forming a slurry and the slurry is heated and dried simultaneously in a drum dryer.

The properties claimed are inherent in the Mitchell et al product because the starch is prepared from the same source of starch as claimed and it is prepared by drum drying a slurry which is the same process disclosed in the specification to prepare the claimed starch. The limitation of the starch being used as dough binder or for use in baked or fried food product is an intended use of the product. Since the starch is the same, it is inherent that the starch can have the same intended use.

Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cremer in view of Mitchell et al.

Mitchell et al discloses a process for preparing a pregelatinized modified starch. The starch is prepared using drum drying. Mitchell et al teach the parameters used to prepare the starch using drum drying and the solid level used in drum drying ( see col. 1 line 65 through col. 2 line 1, col. 2 line 60 through col. 3 line 12).

Cremer does not disclose the solvent is water, the pH, the concentration and grinding into particles.

Cremer discloses forming a slurry. It would have been obvious to mix the starch with water to form a slurry because water is commonly used to disperse the starch. As to the pH and concentration, Cremer teaches drum drying is used; it would have been obvious to one skilled in the to use the drum drying parameters as taught by Mitchell et al to prepare the starch to use in the Cremer process. It would also have been obvious

Art Unit: 1761

to grind the starch as taught by Cremer so that the starch is in the size sufficient to use as binder in the dough.

In the response filed 5/6/04, applicant argues the only reference to the base starch used for the amylose containing component is maize and Cremer only teaches gelatinizing the cold water dispersible component on the roll and the amylose containing starch component of the binder gelatinizes when the potato product is fried. This argument is not persuasive. Applicant does not take into consideration the position taken in the rejection. The rejection points out that the cold water dispersible starch is the amylose containing starch because the starch contains 15-30% amylose and the starch is obtained by drying an aqueous slurry or paste on steam-heated rolls or in a spray drier; potato starch can be used. Applicant's attention is directed to column 4 lines 25-44). The claims do not exclude additional starch. Applicant states Cremer teaches adding water in an amount such that the weight ratio is in a range 1.7:1 to 2.2:1 and that Cremer discloses too much water makes the extruded pieces thin and weak and too little water makes extrusion difficult. Applicant argues this disclosure implies that the properties of the binder are not sufficient to provide binding properties in low water dough. This argument is not persuasive because it is a speculation. Cremer does not disclose the binder is not sufficient and applicant does not have any evidence to show that the binder is not sufficient. Furthermore, the argument is not commensurate in scope with the claims because there is nothing in the claims about water content or low moisture dough or high moisture dough. Applicant argues one skilled in the art would not expect an extruded, high moisture dough product to have the

Art Unit: 1761

same physical properties as the dough and dough binder of the present invention. This argument is not supported by factual evidence. The claimed dough product requires the inclusion of an amylose-containing starch; the dough disclosed by Cremer contains an amylose-containing starch. Furthermore, the starch is treated in the same way as the claimed starch as disclosed in the specification; thus, it is inherent the dough and starch have the same properties as claimed. This standard is not based on probabilities or possibilities because Cremer discloses the same product containing the same starch. If applicant contends the properties are not inherent, the burden of proof is shifted to applicant to show that the properties are not inherent.

With respect to the Mitchell reference, applicant argues Mitchell does not teach or suggest the use of its starches in dough and further Mitchell teaches that any type of base starch can be used, with tapioca being claimed. Applicant states tapioca starch does not fall within the claimed parameters. This argument is not persuasive. The use of the starch in dough is an intended use and does not determine the patentability of the product. Furthermore, the starch of Mitchell is the same as claimed; thus, it is inherent that it can have the same use. While Mitchell et al disclose tapioca starch, they also disclose other starches, including potato starch. A preferred embodiment of the disclosure is not the only embodiment of the disclosure. Mitchell et al do not disclose anywhere that only tapioca can be used and claim 16 of the patent recites potato starch.

Applicant's arguments filed 5/6/04 have been fully considered but they are not persuasive.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lien T Tran whose telephone number is 571-272-1408. The examiner can normally be reached on Tuesday, Wednesday and Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 14, 2004

  
LIEN TRAN  
PRIMARY EXAMINER  
*Group 1700*